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Special Article

Sexual Therapy of Patients with Cardiovascular Disease

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Physical illness or disability inevitably has a damaging effect on sexual relationships. Physicians are usually unaware of the sexual consequences of illness on their patients, and lack experience in treating sexual dysfunctions.

The report of treatment of a couple with serious cardiovascular disease illustrates the potential efficacy of brief sex therapy for improving the quality of a patient's life. If a primary physician lacks the skills to conduct sex therapy, he may collaborate with nonphysician therapists. The physician's knowledge of the physiological and psychological effects of a specific illness on his patient is essential to successful therapy. Often, simple education, encouragement or reassurance by the physician is enough to overcome the damaging effects of illness on a patient's sex life.

SEX THERAPY has flourished in the past decade, stimulated by basic research[1,2] and a social climate in which public attention has focussed on human sexuality. The brief, behaviorally oriented approaches to sexual dysfunctions[3,4] are based on the concept that they are caused by sexual ignorance, performance anxiety and culturally influenced inhibition. It is widely known that sexual dysfunctions are more frequently caused by psychogenic problems than by physical disease. This knowledge has resulted in a justifiable enthusiasm for treating the psychogenic sexual dysfunctions. Unfortunately, sexually dysfunctional patients who are physically ill and disabled have been virtually ignored.

It is now generally recognized that illnesses such as diabetes mellitus, chronic renal failure and multiple sclerosis are frequently associated with enough nervous or vascular damage to cause permanent impairment of sexual functioning. Some attention has recently been directed toward the organic causes of erectile failure in men and inhibition of sexual pleasure in women.[5,6] Studies of patients with spinal cord injuries have contributed to our awareness that even severe physical disabilities do not preclude some forms of satisfactory sexual functioning.[7,8]

However, many health care professionals are not aware of the enormous impact on sexual func-

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tioning that any illness may have. The extent of sexual disability is staggering. Part of the oversight may be a consequence of the myth in our culture that sick people are not sexual. We have a tendency to designate as nonsexual certain categories of people. This is shown in our attitude toward the aged, the mentally retarded and the very young.

Another reason for the oversight is the discomfort of the physician concerned. He or she may have information on human sexuality and sex therapy but may feel uncomfortable asking patients about sexual problems. If one identifies a sexual complaint but has no knowledge of how to treat it, one may be prevented by embarrassment from taking a sexual history.[9] In some instances, a health care worker may contribute to a sexual dysfunction by neglect. Neglecting to discuss a patient's sexual concerns or problems affected by an illness, injury or disability may result in unnecessary morbidity.[10,11] Urologists who do prostatectomies have observed that postoperative erectile failure is diminished if patients are preoperatively given positive expectations about their ability to achieve erections.[12] In this we see how health care professionals may approach sick or disabled persons with a cardiovascular ailment in an effort to identify and ameliorate sexual dysfunctions caused by the illness. The case to be presented illustrates how a couple experienced a greatly prolonged period of abstinence and dysfunction due in part to their physician's failure to discuss the sexual implications of both their cardiac problems.

Report of a Case

George, 55 years old, and Mary, 60 years old, have been married for 22 years. They have had no children together, although each had a child in a previous marriage. Mary worked in a semiskilled job but is now retired. George is currently awaiting a decision concerning his return to his job as a foreman-supervisor at a factory. Judged by levels of education, occupation and income, the couple's socioeconomic status is estimated to be within the upper portion of the lower class. Both George and Mary have an extensive history of coronary artery disease. In a medical follow-up visit George's erectile failure was disclosed, and the couple was referred for treatment to the authors (C.S. and F.L.). A thorough evaluation gave the following information:

Mary's history of coronary disease dated back 11 years to the occurrence of her first myocardial infarction. She convalesced six months before returning to work and normal physical activities. Some eight years later, Mary had a second and more severe myocardial infarction while at home in her husband's presence. She was advised to retire from her job. After nine months, during which sexual activity was prohibited, she was allowed to resume a limited schedule of all activities. Mary also lost weight (30 percent) and this was accompanied by transient symptoms of depression. These physical and psychological conditions remitted within 18 months of the second myocardial infarction. However, two years later Mary's coronary artery disease exacerbated, requiring surgical operation for coronary bypass. During the recovery period she lost more weight and depression and numerous psychosomatic complaints (such as musculoskeletal pains) occurred. She became acutely aware of any pain or physical change she felt in her body. This hypersensitivity to her own somatic sensations has persisted as the primary sequela of her illness. As could be anticipated, Mary's preoccupations included worry and fear about the physical condition of her husband.

Significantly, Mary neither asked about reinstituting any type of sexual activity nor did any of her physicians advise or educate her in this regard. In her own estimation, sex was within the domain of "normal activities." As a direct result, she did not permit herself any sexual activity until her physician said that she could resume "normal activities."

Approximately a year after Mary's bypass operation, George had a myocardial infarction. On angiography extensive coronary artery disease not amenable to surgical intervention was found. George has been treated medically in the year since the myocardial infarction; however, he has not been permitted to return to work. As was true for Mary, George recalled no advice related to the continuation or possible modification of sexual activity at any time following his illness. On one of his follow-up visits, specific assessment of sexual functioning disclosed a history of consistent erectile failure since his myocardial infarction.

Many detailed questions were asked about the specifics of the dysfunction and the role the couple played in contributing to the maintenance of their own undesirable sexual behavior. For

George and Mary, the cause of the erectile failure appeared to be directly related to the coronary artery disease that affected both marital partners. Before Mary's first myocardial infarction, they reported no sexual difficulties. Their frequency of intercourse was approximately three times a week, each partner was orgasmic, neither had extramarital sexual interests or activities, and both were satisfied with the quality of their sexual and marital relationships. Following Mary's infarction 11 years ago, they were able to recall a slight change in George's desire for sexual activity. He did not seem to initiate lovemaking quite as often. They both agreed that between Mary's first and second infarction, the frequency of intercourse decreased to two times weekly. Although George and Mary were able to provide this information when asked, they were only partially aware of its occurrence as it was taking place. No masturbation or extramarital sexual contact was initiated by either partner during this time. They had never talked to one another about their developing sexual difficulties.

They became more aware of changes in their sexual behavior after Mary had her second myocardial infarction. No sexual activity occurred for the nine months Mary was recovering. It was resumed at a frequency of once to twice a week. In addition, George began to notice a change in his attitude and feeling toward sexual intercourse with his wife. It should be recalled that Mary's second infarction occurred in George's presence while they were both lying in bed. Also of importance are the hypochrondriacal sequelae that Mary carried with her from the life-threatening illnesses she had experienced. They served as a personal reminder of the severity of Mary's physical condition, the weight she had lost, the apathy of her spirit and even the fragility of life itself. The sum of these factors made George feel guilty for still wanting to have sexual intercourse with his wife.

Further history uncovered actual fears and fantasies of George's physically hurting Mary during the act of sexual intercourse. The typical position they used was the male superior position where George would be required to place the weight of his body directly on Mary. George would picture in his mind how gravely ill and depleted Mary appeared during her illness. He would then be repulsed by his own amorous thoughts of intercourse, and feel guilty for wanting to follow through with his sexual desires. Consequently, he refrained from engaging in their normal frequency of sexual activity.

These undesirable attitudes were magnified following Mary's open heart surgical operation several years later. Mary convalesced for eight months and during this time no sexual activity occurred. When intercourse was attempted, it was experienced as painful for Mary and subjectively interpreted by George as a further confirmation of his fears and fantasies of damaging Mary's fragile health in the satisfaction of his own sexual needs. The therapists' assessment of the painful intercourse suggested that George's fears may have manifested in the form of attempting to "get it over" as quickly as possible. Therefore, Mary may not have been stimulated to the point that adequate lubrication occurred.

Mary's coronary artery disease appeared to contribute to George's erectile dysfunction which occurred approximately 50 percent of the time. In a separate interview with George, the male therapist discovered that George began his first extramarital affair as his erectile difficulty worsened. He participated in the affair several times a month and experienced only occasional erectile failure in his efforts to reestablish his competence with a new partner.

The final event of etiological significance was the myocardial infarction that George had had approximately a year following Mary's operation. George was almost completely unable to get an erection from this time forward. He would have occasional morning erections but could not act quickly enough to have intercourse before the erection became flaccid. The couple presented themselves for sex therapy about four months after George's myocardial infarction.

Many of George's previous fears of hurting Mary now took on even greater significance because he had experienced a myocardial infarction and could directly share the feelings associated with a life-threatening illness. Although his post-infarction treatment prescription included maximum physical exercise, he still harbored doubts about his ability to withstand the rigors of sexual intercourse. Fears of suffering a "coital coronary" were not limited to George. Mary knew her heart was enlarged. Sexual activity caused it to beat faster and she could feel its pounding against her chest. She was afraid the more forceful beating would cause her heart to enlarge even more and endanger her life. Similarly, she often expressed the fear that the pressure of George's body dur-

ing intercourse would cause her "chest stitches to burst."

George now found himself faced with many of the same doubts, fears, anxieties and uncertainties that Mary had had for the preceding several years. The difference was that Mary expressed her feelings and attitudes directly while George worried and tried to keep them contained in hopes of avoiding feelings of self-pity. However, the opposite result seems to have occurred—that is, Mary experienced some degree of relief while George appeared to become more anxious. In no instance would either engage the other in an open discussion of their fears and anxieties around their coronary artery disease or their sexual dysfunction.

It became clear that the sexual dysfunction was closely related to fears and fantasies surrounding their coronary artery disease. The sexual history elicited the specific cause but did not unearth the full magnitude of their fears and concerns. The couple was referred for treatment of erectile failure to a male-female co-therapy team consisting of a psychology intern and a clinical nurse specialist. The co-therapists were trainees supervised by a psychiatrist experienced in sexual therapy.

Course of Sexual Treatment

Initial evaluation

Before a couple is accepted for treatment a thorough assessment is made:

- The specific nature and history of the sexual dysfunction is established. Detailed questions are asked about previous and present sexual functioning and the specific behaviors associated with the sexual symptom.
- It is determined if there is any severe psychopathology in either partner (for example, schizophrenia or severe depression) which might interfere with the couple's ability to participate in treatment.
- The quality of the relationship between the couple is evaluated. If it is too unstable and hostile, that would also preclude treatment.
- Medical evaluation is made of any physical disability because it might contribute to sexual dysfunction.

The common sexual difficulties experienced by men with cardiovascular disease are erectile failure (impotence) or retarded or premature ejaculation. Women with cardiac disease suffer from inability to achieve orgasm or generally diminished sexual pleasure. The results of George's and Mary's evaluation indicated the sexual dysfunction to be erectile failure. No major psychopathology was evident in either partner and their marital relationship was quite amicable. Results of medical evaluation did not preclude either partner from participating in their normal range of sexual behaviors.

Both George and Mary at first responded to the evaluation sessions with skepticism, caused by fear that nothing could be done to help them. The therapists were sensitive to these concerns, which patients commonly have. They expressed optimism that the erectile difficulty could be successfully treated. This initial anxiety is often related to the new patient's anticipation of reexperiencing the erectile failure in the therapy situation.

Steps of Treatment

Sensate Focus: Nongenital

The first task of therapy is to remove the pressure to produce, perform and achieve. This is accomplished by banning all sexual activities not specifically assigned as part of the treatment. The rationale is to divert attention away from arousal, erection, intercourse and orgasm. In their place are substituted the alternative behaviors of giving and receiving the pleasure without the anxiety of having to produce or perform.

The next step is to begin sensate focus exercises designed to provide the couple with the opportunity to give and receive pleasure by experimenting with different ways of stroking, touching and caressing themselves and each other. Because sex therapy encourages discovery of one's own pleasurable sensations, each partner is freed of the expectation that he or she must produce a singular "adequate response." Furthermore, the therapists have given *permission* for, and asked the couple to become more aware of their own pleasurable feelings and sensations.

Frequently, initial sensate focus exercises begin with the process of patients "getting in touch with their own bodies" by discovering various kinds of pleasurable, neutral and nonsexual sensations. Emphasis is directed toward these "new" pleasurable body sensations rather than the more familiar sensations of sexual arousal associated with intercourse and orgasm.

The following steps used to treat George and Mary are typical of sex therapy:

Session 1

A body exploration in front of a full-length mirror and genital exploration with a hand mirror was assigned. This exercise was employed in response to their reported lack of awareness of their own bodies. Some degree of anxiety and discomfort was anticipated and discussed with the couple. It was emphasized that anxiety is common among couples who have not engaged in such contact, or when sex has been primarily oriented toward orgasm and performance.

Session 2

It was clear that they were uncomfortable with the genital exploration. At this point a decision was made not to try to overcome their uncomfortable feelings. Rather, an alternative exercise with the same goal was assigned. The couple was asked to stimulate their skin with ten different objects to explore and discover new pleasurable body sensations and possibly expand their sexual repertoire.

George enjoyed the assignment and stated that the sensations made him feel "real sexy." Mary enjoyed it somewhat less. She did not like being nude and felt ashamed of her body. The educative process of sex therapy encourages the expression of these and other uncomfortable feelings in an effort to help the couple understand the fears and concerns often motivating their feelings. As Mary's negative feelings were explored it became very clear that her discomfort and anxiety were related to her fear that she was no longer attractive and sexually appealing to her husband. George's reassurance that he did not see her as less attractive seemed to reduce some of her anxiety.

Sessions 3 and 4

Mutual body massages excluding the breasts and genitals were assigned. Since the couple had successfully explored and discovered new pleasurable sensations individually and had begun the process of communicating their feelings, it was appropriate to add additional dimensions to the sexual exercises. They were given sensate focus exercises which emphasize mutual giving of pleasure and also communication. They were given very specific instructions about the setting, how to relax before doing the assignment, and various ways of caressing and touching. Special emphasis was placed on explaining the purpose of the giver and receiver roles. For example, if George were receiving the massage, he was to concentrate on the pleasurable sensations and to tell Mary what he liked as well as what he did not like.

Sessions 5 and 6

Usually at this stage a program of sex therapy would have dictated full body massages including genitals and breasts. However, several issues regarding physical health interrupted the normal course of treatment. Specifically, George was scheduled for heart catheterization to determine the need for open heart surgical operation. Both George and Mary were extremely anxious about it and not able to communicate their fears to one another. Therefore, these sessions were used to explore their individual and mutual fears.

The therapists became aware of George's level of anxiety when he asked a series of questions related to the upcoming catheterization. The responses did not reduce his anxiety. At this point, more direct questioning showed his fears of an operation and imminent death. His underlying apprehension was due to the uncertainty of the prognosis. With each additional test, it seemed more likely that he would be unable to return to his previous level of activity. It became more apparent that George was basing his expectation of a cardiac surgical procedure on Mary's experience and her long, arduous convalescence from her operation. More specifically, he was afraid that, like his wife, he too would become physically incapacitated and emotionally preoccupied with the cardiac disability.

Mary's major concerns came from her experience as a cardiac patient. She was afraid that George would undergo a perilous series of operations and, ultimately, not survive. To a woman who had grown very dependent on a strong healthy husband, the thought of a complicated surgical operation and his possible death were extremely frightening. Through discussions of the pending operation, George and Mary were shown that they shared many of the same concerns. This was the first time in their marriage that George had discussed an important problem with his wife. Much to his surprise, she did not break down; to the contrary, she was very supportive. The usual sexual homework assignments were suspended during this time and the couple were instructed to continue these discussions at home as their assignment.

Sensate Focus: Genital

This next series of exercises is designed to allow each partner to give pleasure to the other through massage and genital caressing. As with previous sensate focus exercises, emphasis is placed on identification of feelings and sensations by the person receiving the massage and communication to the partner who is in the role of giver. In this manner, the receiver is able to know what types of stimulation are pleasurable and, just as important, is able to request and guide the efforts of the giver. Again, the couple is instructed to concentrate on sensations rather than efforts to achieve ejaculation or orgasm.

Sessions 7 and 8

Full body masages, nongenital and genital, were assigned but only partially completed. The presence of a hematoma in George's femoral area, a complication of the heart catheterization, proved to be another physical setback that was of primary concern to them. Initially, George expressed anxiety and frustration from the swelling and pain caused by the hematoma. He was reassured that the hematoma was a common complication and encouraged to consult his physician for specific measures to relieve the pain.

At this point, the therapists consulted George's physician to ascertain the physical limitations that could interfere with the progress of sex therapy. This was the belated beginning of a liaison between physician and sex therapists that proved to be quite helpful. The physician was informed and involved in the sex therapy plan to insure coordination with the medical treatment plan. He was eager to consult and support the sex therapy efforts by reassuring George and Mary that the hematoma was healing satisfactorily and the specific sexual exercises would not be harmful.

The couple reported a good experience with the nongenital massage and were instructed to proceed to a full body massage including the genitals. George reported feeling aroused and did finally experience an erection that was partially inhibited by pain from the residual hematoma. He was now able to associate this pain with his underlying fear that a full erection would cause the hematoma to burst. This is an excellent example of how pain associated with fear can result in a learned sexual dysfunction.

Intervention consisted of clarifying their misconceptions about the hematoma and providing factual information that reduced their fears. This illustrates the importance of identifying the underlying fears, and the efficacy of simple education in the sex therapy of patients with physical problems.

Session 10

The couple was asked to repeat the genital massage. Pain from the hematoma was subsiding and George was able to carry out the assignment and enjoy a full erection. He reported little pain and, more important, minimal fear as a direct result of factual information given during the previous session.

Erectile Response

George had now experienced a return of erectile responsiveness. The emphasis of sex therapy shifted to the restoration of a consistent, reliable erection. With the remittance of the sexual symptom came a sense of confidence and desire to strengthen the revitalized erectile response.

The usual series of exercises assigned to promote control over erection and retarded or premature ejaculation are extravaginal orgasm and vaginal containment without orgasm. Extravaginal orgasm consists of each partner bringing the other to orgasm without intercourse. Manual and masturbatory stimulation are substituted for intercourse. Vaginal containment of the penis without the goal of orgasm is introduced as the final step before active intercourse. The male is instructed to insert his erect penis into his partner's vagina. The female is instructed to be a passive participant in that she is "lending her vagina" to her partner and following his requests and directions for movement which will allow the male to achieve further penile and ejaculatory control.

These exercises are optional and employed typically if initial erections are less than full and consistent. They are very important steps in the treatment of premature ejaculation and retarded ejaculation.

Session 11

A full body-genital massage bringing each partner to orgasm was assigned. In an effort to promote confidence in George's ability to achieve regular erections, therapy focused on orgasm through manual stimulation. In the past, they had only experienced orgasm through intercourse. Their initial response to this exercise was guarded. It was necessary to explain that this form of sexual behavior was "normal." Successful completion of the masturbation exercises illustrates

the importance of giving the patients permission to engage in sexual behaviors which may be new for them.

Session 12

As it became obvious that George had control over erections, the couple was given the option of proceeding to intercourse and orgasm. The reason this was presented as an option rather than an assignment was to minimize anxiety associated with resumption of intercourse. They elected this option and were delighted with their ability to achieve orgasm in coitus as they had before. Had this assignment been unsatisfactory, vaginal containment without orgasm would have been assigned.

Session 13 and 14

Development of a maintenance program was begun. The purpose of a maintenance program is to insure that the new sexual behavior becomes a part of the couple's sexual repertoire beyond the termination of treatment. The first step was to ask each partner to list desirable sexual and nonsexual behaviors that they would like to see continued. The next step involved a mutual discussion of how they could implement and maintain the desired behaviors on their own. The final step was to meet with the physician and the couple to review the specific problems and progress achieved in sex therapy. This also served to transfer the authority and responsibility back to their primary physician to monitor future sexual adjustment.

Discussion

The application of sexual therapy in the treatment of sexual dysfunction in a couple with coronary artery disease illustrates several points:

- Health care professionals largely are still unaware of the enormous impact that physical illness may have on sexual functioning. Moreover, the attitude that sick people are not sexual appears to play a major role in the perpetuation of this nescience.
- Health care professionals may inadvertently contribute to a patient's sexual dysfunction by neglecting to discuss the impact of physical illness on sexuality.
- The lack of sexual information may contribute to the development of a patient's fears about the deleterious effects of sexual activity on health. A common result is an unnecessary and prolonged abstinence from sexual functioning.[10,11]
- All patients develop idiosyncratic fantasies about their body's functioning when they become ill or disabled. Whether the concern is about a hematoma bursting, or a suture line which may dehisce, the physician needs to learn about the fantasy in order to dispel his patient's misconceptions.

The sexual dysfunctions of patients with coronary artery disease can be divided into those that are primarily psychogenic and those that are physically caused. Psychogenic sexual dysfunctions include those cardiovascular conditions in which there may be minimal physical impairment of sexual functioning. Myocardial infarction, recovery from coronary bypass surgical operation and angina are the major examples represented in this category. Such psychogenic sexual dysfunctions appears to result from fear of death or injury during coitus. With some modification, the sexual therapy outlined in the case presentation may serve as a model for the treatment of psychogenic sexual dysfunctions. For example, a modification for a patient recovering from a coronary bypass operation would include experimentation with sexual positions that impose less stress on the coronary vascular system and reduce postoperative pain. For a patient with angina, identification of less strenuous sexual positions and activities as well as the prophylactic use of nitroglycerine may be appropriate.

Sexual dysfunctions due to cardiovascular disease that have primarily physical causes include femoral occlusive disease, cardiomyopathy, severe valvular disease and congestive heart failure. These conditions are frequently associated with enough nervous or vascular damage to permanently interfere with normal sexual functioning. The more debilitating the disease, the greater the need for more radical modifications in treatment of the sexual dysfunction.

For example, a patient with severe femoral occlusive disease may be unable to achieve and maintain an erection. One should not assume that the absence of an erection precludes alternative forms of sexual arousal and pleasure. To the contrary, sick people can be sexual. Modifications in sex therapy for physically disabled patients begins with an assessment of their physical limitations and capabilities. This information is shared with the couple and specific sexual exercises are assigned to expand their sexual repertoire. In many cases, both partners may be orgasmic or

achieve a significant degree of pleasure despite the erectile dysfunction. They are encouraged and given permission to explore and become more aware of the pleasurable feelings and sensations that remain available to them. Some degree of mutual gratification can be achieved despite physical limitations. The importance of careful assessment of physical limitations and capabilities in relation to sexual functioning cannot be over emphasized. Patient education, permission giving, facilitating communication skills and support provided by the therapists are the primary tools used to ameliorate a wide variety of sexual dysfunctions. These same methods can also be used more positively by concerned health care professionals to prevent dysfunctions before they occur.

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Corticosteroids for Treatment of Infectious Mononucleosis

When are corticosteroids indicated for treatment of infectious mononucleosis? First of all, I have to tell you there is no proven efficacy. However, there are ample anecdotal stories, and most experts, even in the absence of documentation, would use steroids for impending airway obstructions resulting from severe pharyngitis or the pain of the pharyngitis itself (if that were severe); severe thrombocytopenic purpura, acute hemolytic anemia and the severe neurologic syndromes. Some would also say if the leukopenia were severe, they would also add steroids as well. Again, there are no controlled studies that show proven efficacy.

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